First records of oribatid mites (Acari, Oribatida) of Mezin National Nature Park (Ukraine)

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Shevchenko, O. S. First records of oribatid mites (Acari, Oribatida) of Mezin National Nature Park (Ukraine). Abstract. Based on material collected on several plots in July, 2016, first data on oribatid mites (Acari, Oribatida) of Mezin National Nature Park (Ukraine) are obtained. 56 oribatid species are recorded.

Key words: oribatid mites, Mezin National Nature Park, fauna, Ukraine.

Шевченко, О. С. Перші відомості про орибатидних кліщів (Acari, Oribatida) Мезинського національного природного парку (Україна). Резюме. На підставі зборів у деяких ділянках у липні 2016 р. отримано перші дані про різноманіття орибатид (Acari, Oribatida) Мезинського національного природного парка (Україна). Наведено 56 вид панцирних кліщів.

Ключові слова: орибатидні кліщі, Мезинський національний природний парк, фауна, Україна.

Шевченко, О. С. Первые сведения об орибатидных клещах (Acari, Oribatida) Мезинского национального природного парка (Украина). Резюме. На основании сборов на некоторых участках в июле 2016 г. получены первые данные о разнообразии орибатид (Acari, Oribatida) участков Мезинского национального природного парка (Украина). Приведено 56 видов панцирных клещей.

Ключевые слова: орибатидные клещи, Мезинский национальный природный парк, фауна, Украина.

Introduction

Mezin National Nature Park (MNNP) has been established in 2006 in Chernihiv region of Ukraine. It is located in Novgorod-Siverske Polissia on the right bank of Desna River. Aside from insects, almost no arthropods have been studied here and among these taxa are oribatid mites.

At least 97 oribatid species have been recorded for Chernihiv region of at least 222 in the forest zone of Ukraine (Polissia) according to (Yaroshenko, 2000). Considering that altogether oribatid fauna of Ukraine consists of at least 736 species, and in other regions in the same zone of mixed forests 149 and 156 species have been found (ibid.), northern Ukraine is of particular interest for further faunistic studies.

This article gives a list of oribatids collected in July 2016 at MNNP in such biotopes: spruce alley; mixed forest (2 separate plots); and moss on a building in Vyshenky village (included in MNNP).

Material and methods

Samples of soil, litter, lichens and mosses were collected in two areas of MNNP, July 8-10, 2016. The mites were extracted with Berlese funnels in 70 % ethanol and mounted on slides in Hoyer liquid, species identified with keys (Определитель…, 1975; Pavlichenko, 1994, Sergienko, 1994; Weigmann & Monson, 2004; Weigmann & Schatz, 2015), given according to (Subias 2004, online version 2012).The spruce alley is the botanical natural monument of local importance "Ancient Spruce Alley", part of landscape zakaznik of national importance "Rykhlivska dacha" (N 51°40′49″, E 32°52′42″). The other sampling area is regional landscape zakaznik "Vyshenska dacha" (mostly oak, oak-linden, oak-linden-maple stands). The latter sampling area is near Vyshenki village. And moss was sampled in Vyshenki village (N 51°38′36″, E 33°03′57″). Geographical coordinates are given according to Wikipedia.

Results

3038 adult oribatid mites were identified resulting in 56 oribatid species and three genera not identified to species. Most of Damaeoidea, Galumnoidea and Oppioidea, all of Trizetoidea were identified to the family level and are not listed below. Supposedly, local oribatid species diversity is at least twice higher than that.

Species found in "Rykhlivska Dacha" (including those of botanical natural monument of local importance "Ancient Spruce Alley") are marked by (1), those found in zakaznik

"Vyshenska dacha" by (2). Some of the identified species haven't previously been found in Ukrainian Polissia according to Yaroshenko (2000) (marked by *): *Achipteria coleoptrata* (Linnaeus, 1758) (1, 2), *Acrogalumna longipluma* (Berlese, 1904)* (1, 2), *Acrotritia ardua affinis* (Sergienko, 1989) (1), *Anachipteria deficiens* Grandjean, 1932 (1), *Atropacarus striculus* (Koch, 1835) (1), *Banksinoma lanceolata* (Michael, 1885) (1), *Carabodes areolatus* Berlese, 1916 (1), *Carabodes coriaceus* Koch, 1835 (1, 2), *Carabodes* sp. (2), *Ceratozetes gracilis* (Michael, 1884) (1), *Ceratozetes macromediocris* Shaldybina, 1970* (1), *Ceratozetes mediocris* Berlese, 1908 (1), *Chamobates cuspidatus* (Michael, 1884)* (2), *Chamobates pusillus* (Berlese, 1895) (1, 2), *Chamobates rastratus* (Hull, 1914) (1), *Chamobates subglobulus* (Oudemans, 1900)* (1), *Coronoquadroppia monstruosa* (Hammer, 1979)* (1), *Damaeus subverticillipes* Bulanova-Zachvatkina, 1957 (1), *Euzetes globulus* (Nicolet, 1855) (1), *Eremaeus hepaticus* Koch, 1835* (1), *Eremaeus oblongus granulatus* (Mihelčič, 1955) (1), *Eupelops torulosus* (Koch, 1839) (2), *Euphthiracarus cribrarius* (Berlese, 1904) (1), *Fosseremaeus laciniatus* (Berlese, 1905)* (1), *Furcoribula furcillata* (Nordenskiöld, 1901) (1), *Fuscozetes fuscipes* (Koch, 1844)* (1), *Gymnodamaeus bicostatus* (Koch, 1835) (2), *Heminothrus targionii* (Berlese, 1885) (1), *Hermannia gibba* (Koch, 1839)* (1), *Hermaniella dolosa* Grandjean, 1931 (1), *Hypochthoniella minutissima* (Berlese, 1904) (1, 2), *Hypochthonius rufulus rufulus* Koch, 1835 (1, 2), *Lagenobates lagenula* (Berlese, 1904)* (1, 2), *Liacarus coracinus* (Koch, 1841) (1), *Liochthonius brevis* (Michael, 1888) (1), *Malaconothrus monodactylus* (Michael, 1888)* (1), *Melanozetes mollicomus* (Koch, 1839)* (1), *Mesotritia nuda* (Berlese, 1887)* (2), *Metabelba papillipes* (Nicolet, 1855) (1, 2), *Moritzoppia unicarinata* (Paoli, 1908) (1), *Neoribates aurantiacus* (Oudemans, 1914) (1, 2), *Nothrus biciliatus* Koch, 1841 "sp. inq." (2), *Nothrus palustris* Koch, 1839 (1), *Notophthiracarus meridionalis* (Sergienko, 1992)* (1), *Oppiella nova* (Oudemans, 1902) (1, 2), *Oribatula* sp. (1, 2), *Phauloppia rauschenensis* (Sellnick, 1908)* (1), *Phthiracarus compressus* Jacot, 1930* (1), *Poroliodes farinosus* (Koch, 1840)* (1), *Protoribates capucinus* Berlese, 1908 (1), *Quadroppia quadricarinata* (Michael, 1885) (1, 2), *Scheloribates laevigatus* (Koch, 1835) (1, 2), *Semipunctoribates zachvatkini* (Shaldybina, 1969)* (2), *Steganacarus carinatus* (Koch, 1841) (1), *Suctobelbella* spp. (1, 2), *Tectocepheus velatus* (Michael, 1880) (1, 2), *Tectoribates ornatus* (Schuster, 1958) (1), *Trhypochthonius conspectus* Sergienko, 1991*(2), *Xenillus tegeocranus* (Hermann, 1804) (1, 2), *Zetorchestes* sp. (1).

Carabodes coriaceus, *Carabodes* sp., *Chamobates sergienkoae*, *S. laevigatus*, *Oribatula* sp., *O. nova*, *T. velatus* were found in moss sample in Vyshenki village.

Interestingly, no Brachychthoniidae apart from *L. brevis* are found in samples, possibly due to summer conditions.

Only members of *Coronoquadroppia* and *Lagenobates* are relatively new for Ukrainian fauna due to recent revisions of their respective families; and *L. lagenula* was previously recorded as *Protoribates lagenula* (Berlese, 1904) in the wood-and-steppe zone of Ukraine. Of the superfamily Ceratozetoidea (*e.g.*, the genera *Chamobates* and *Ceratozetes*), first for Polissia finds can also be explained by the relatively recent revision by Pavlichenko (1994).

According to these results, territory of Ukrainian Polissia is still insufficiently studied.

The meadows, Desna River floodplain and some other habitats of MNNP are not considered here thus the oribatid species list after thorough sampling would most likely include more species of drier open areas like those of wood-and-steppe zone of Ukraine.

Conclusions

Altogether 56 oribatid species are recorded for Mezin National Nature Park. 18 of them are new for Ukrainian Polissia. The sampling efforts were concentrated in forest areas of MNPP thus the species list does not reflect the variety of habitats of the nature park. Also, summer conditions must have prevented sampling of some oribatid taxa, and future studies of local oribatid diversity are needed.

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